

PHILIP H. MOSENTHAL, PARTNER

Optimal Energy | 10600 Route 116, Suite 3 | Hinesburg, VT 05401 | 802-482-5607 | mosenthal@optenergy.com

PROFESSIONAL EXPERIENCE

Optimal Energy, Hinesburg, VT. Founding Partner, 1996-present.

Consult with electric and gas utilities, governments and other non-utility parties on energy efficiency, resource planning and regulatory issues. Develop strategies for achieving energy efficiency and least-cost resources, including administrator funding and incentive mechanisms, and program and market design and analysis.

Resource Insight, Inc., Middlebury, VT. Senior Research Associate, 1995-1996.

Consulted on DSM planning, program design, monitoring and evaluation, and resource characterization, specializing in the commercial and industrial sectors. Projects performed on behalf of utility and non-utility parties, in both cooperative settings and in contested regulatory proceedings.

Xenergy, Inc. (now DNV-GL), Allendale, NJ. Chief Consultant, 1990-1995.

Managed the consulting division for Xenergy's (now DNV-GL's) Research, Planning and Evaluation Group (RP&E) in its Mid-Atlantic Region. Responsibilities included direct utility consulting, as well as marketing, administration and staff management for RP&E. Consulting activities focused on assessment of DSM technology potential, DSM planning, program design and development, and process and impact evaluation for electric and gas utilities.

EDUCATION AND LICENSING

University of Pennsylvania, Philadelphia, PA Master of Science, Energy Management and Policy, 1990

University of Pennsylvania, Philadelphia, PA Bachelor of Arts, Design of the Environment, 1982

Pennsylvania State University, Ambler, PA Certificate in Electrical Engineering, 1984

REPRESENTATIVE PROJECT EXPERIENCE

Massachusetts Energy Efficiency Advisory Council

Team Manager and senior advisor for the commercial and industrial programs and plans for Massachusetts, on behalf of the Massachusetts Energy Efficiency Advisory Council. Responsible for leading a team of consultants representing non-utility parties interests on the planning, design, development, implementation and evaluation of all Massachusetts's utility programs, and a lead advisor specifically related to C&I sector issues. This project involves supporting the EEAC and utilities in

Philip H. Mosenthal Page 1 of 7

developing and implementing a set of SBC-funded programs with the most aggressive savings goals in the U.S. (2006 – present)

Efficiency Vermont

Advisor on program design, development and planning for Efficiency Vermont, the world's first Energy Efficiency Utility, as part of multi-organizational enterprise operating under a \$30 million contract with the Vermont Public Service Board to deliver statewide energy-efficiency programs for the customers of Vermont's twenty-one electric utilities. Includes design, development and start-up of programs to serve the commercial, industrial, institutional and agricultural sectors in Vermont. (2000 – present)

Illinois Attorney General

Lead advisor for the Illinois Attorney General's Office on efficiency program planning, design, implementation, evaluation and general oversight of utility electric and gas efficiency programs throughout Illinois. Represent the IL AG in a stakeholder process with the utilities and other parties (2007 – present).

State Clean Energy Action Plans, EPA Clean Energy Partnership

Lead energy efficiency analysis, research and product development for EPA's Clean Energy Partnership with State and Local Governments to advance State Clean Energy Action Plans. Projects included development of a Clean Energy Fund Manual to guide state planners in development of Clean Energy Action Plans; development of an energy efficiency potential assessment guide as part of the EPA's National Action Plan on the use, value and performance of efficiency and renewable potential assessments; and development of multi-year plans for efficiency programs for Ohio Office of Energy Efficiency. For EPA (2006 — 2009)

New York State, Assessments and Program Design and Analysis

Manager of NY statewide electric, gas and petroleum efficiency and renewable energy resource assessments and program design and analysis. Responsible for coordinating large multidisciplinary teams to assess residential, commercial and industrial gas efficiency potential, and design and analyze a portfolio of efficiency programs to be delivered statewide. Multiple studies over a decade. For NYSERDA (2003 – present)

TESTIMONY

Jurisdiction	Proceeding Number/Dates	On Behalf of	Nature of Testimony
Connecticut DPUC	Docket No. 03-01- 01, October 2003	Connecticut Office of Consumer Counsel	Critical review of Connecticut investor owned utility electric efficiency programs and goals, and recommendation of adoption of more aggressive goals and a performance incentive mechanism to reward utility shareholders for exemplary performance.
Florida PSC	Docket Nos. 080407-EG thru 080413-(E.G.,, July 2009	Natural Resources Defense Council and Southern Alliance for	Review and Critique of 8 Florida utility DSM plans, goals, budgets and efficiency potential analyses.

Philip H. Mosenthal Page 2 of 7

		Clean Energy	
Illinois ICC	Docket No. 07- 0539, December 2007	Illinois Office of Attorney General	Testimony on 2008 – 2010 DSM Plans of Central Illinois Light Company (dba AmerenCILCO). Testimony addresses recommendations for modification of DSM Plans, as well as issues related to cost recovery and evaluation and verification of savings.
Illinois ICC	Docket No. 07- 0540, December 2007	Illinois Office of Attorney General	Testimony on 2008 – 2010 DSM Plans of Commonwealth Edison. Testimony addresses recommendations for modification of DSM Plans, as well as issues related to cost recovery and evaluation and verification of savings.
Illinois ICC	Docket No. 07- 0541, December 2007	Illinois Office of Attorney General	Testimony on 2008 – 2010 DSM Plans of Illinois Department of Commerce and Economic Opportunity. Testimony addresses recommendations for modification of DSM Plans, as well as issues related to cost recovery and evaluation and verification of savings.
Illinois ICC	Docket No. 10- 0568, November 2010	Illinois Office of Attorney General	Testimony on 2012 – 2014 DSM Plans of Central Illinois Light Company (dba AmerenCILCO), Central Illinois Public Service) Company, (dba AmerenCIPS) and Illinois Power Company (dba AmerenIP). Testimony addresses appropriateness of EE goals and budgets, recommendations for modification of DSM Plans, as well as issues related to state statutes, cost recovery and evaluation and verification of savings.
Illinois ICC	Docket No. 10- 0570, November 2010	Illinois Office of Attorney General	Testimony on 2012 – 2014 DSM Plans of Commonwealth Edison. Testimony addresses appropriateness of EE savings goals and budgets, interpretation of state statutes, recommendations for modification of DSM Plans, as well as issues related to cost recovery and evaluation and verification of savings.

Philip H. Mosenthal Page 3 of 7

Illinois ICC	Docket No. 10- 0562, November 2010	Illinois Office of Attorney General	Testimony on 2012 – 2014 DSM Plans of Northern Illinois Gas Company (dba Nicor Gas Company). Testimony addresses recommendations for modification of DSM Plans, appropriateness of EE savings goals and budgets and compliance with Illinois Statutes, as well as issues related to opt-out provisions, transportation gas customer treatment, integration of gas and electric programs, cost recovery and evaluation and verification of savings.
Illinois ICC	Docket No. 10- 0564, November 2010	Illinois Office of Attorney General	Testimony on 2012 – 2014 DSM Plans of North Shore Gas Company and The Peoples Gas Light & Coke Company. Testimony addresses recommendations for modification of DSM Plans, appropriateness of EE savings goals and budgets and compliance with Illinois Statutes, as well as issues related to opt-out provisions, transportation gas customer treatment, integration of gas and electric programs, cost recovery and evaluation and verification of savings.
Illinois ICC	Docket No. 10- 0519, September 2011	Illinois Office of Attorney General	Testimony on PY2 (2010-2011) compliance with savings goals pursuant to Section 8-103(f) of the Public Utilities Act.
Illinois ICC	Docket No. 11- 0593 August 2011	Illinois Office of Attorney General	Direct testimony on ComEd program year 3 (2011-2012) compliance with savings goals pursuant to Section 8-103(f) of the Public Utilities Act.
Illinois ICC	Docket No. 11- 0593 November 2011	Illinois Office of Attorney General	Rebuttal testimony on ComEd program year 3 (2011-2012) compliance with savings goals pursuant to Section 8-103(f) of the Public Utilities Act.
Illinois ICC	Docket No. 11- 0689, February 2013	Illinois Office of Attorney General	Testimony comments regarding on-bill-financing legislation, plans and evaluation plans in compliance with Public Act 96-0033 and ICC Initiating Order 11-0689.
Illinois ICC	Docket No. 11-	Illinois Office of	Rebuttal testimony on Ameren program

Philip H. Mosenthal Page 4 of 7

	0592 March 2013	Attorney General	year 3 (2011-2012) compliance with savings goals pursuant to Section 8-103(f) of the Public Utilities Act.
Illinois ICC	Docket No. 13- 0498 October 2013	Illinois Office of Attorney General	Direct and Rebuttal testimony on Ameren Plan 3 (2014-2016) approval of the Energy Efficiency and Demand- Response Plan Pursuant to 220ILCS 5/8- 103 and 220 ILCS 5/8-104.
Illinois ICC	Docket No. 13- 0499 October 2013	Illinois Office of Attorney General	Direct and Rebuttal testimony on DCEO Plan 3 (2014-2016) approval of the Energy Efficiency and Demand-Response Plan Pursuant to 220ILCS 5/8-103 and 220 ILCS 5/8-104.
Illinois ICC	Docket No. 13- 0550 December 2013	Illinois Office of Attorney General	Direct testimony on Integrys Plan 2 (2014-2016) approval of the Energy Efficiency and Demand-Response Plan Pursuant to 220ILCS 5/8-104.
Illinois ICC	Docket No. 13- 0549 January 2014	Illinois Office of Attorney General	Direct testimony on Nicor Plan 2 (2014-2016) approval of the Energy Efficiency and Demand-Response Plan Pursuant to 220ILCS 5/8-104.
Indiana URC	Cause No. 43114 and No. 43114 SI, May 2007	Citizens Action Coalition of Indiana, Save the Valley Coalition, Valley Watch, Sierra Club	Testimony in Duke Energy and Vectren rate cases regarding the need for a new IGCC power plant. Addressed the achievable potential for electric efficiency in Duke Energy and Vectren's territories, the associated costs and benefits, and the reliability impact of efficiency on their electric systems as an alternative to the IGCC plant. Addressed the need for establishment of a utility performance incentive mechanism to provide incentives for pursuit of energy efficiency initiatives.
New York PSC	CASE 06-G-1322, March 2007	Natural Resources Defense Council, PACE Energy Project, Association for Energy Affordability	Presented analysis of the natural gas efficiency potential in Con Edison service territory, the associated costs and benefits to achieve it, and recommended funding levels and strategies to capture gas efficiency. Addressed the need for a revenue decoupling mechanism and performance incentives to overcome Con Edison disincentives to successfully administer efficiency programs.

Philip H. Mosenthal Page 5 of 7

Ontario Energy Board	EBRO 493/494, August 1996	Green Energy Coalition	Review and critique of Union Gas Company's 1997 DSM Plan
Ontario Energy Board	EBRO 487, 1998	Green Energy Coalition	Review and critique of Consumers Gas Company's 1999 DSM Plan
Texas Legislature	House Committee on Regulated Industries hearing on HB269, Feb. 2007	Public Citizen	Testimony on electric energy efficiency potential in Texas, reliability issues in ERCOT load zone, and benefits and costs of meeting new load growth with efficiency.
Vermont PSB	Docket No. N/A, 1996	Vermont Department of Public Service	Critical review and recommendations on Green Mountain Power's (GMP) performance and plans for C&I New construction programs.
Vermont Legislature	Senate Natural Resources and Finance Committee hearings on S62, 1997	On behalf of the Committee	Testimony electric restructuring bill (S62) addressing the benefits and costs to Vermonters and potential environmental and consumer impacts.
Vermont PSB	Docket No. 5980, August1997	Vermont Department of Public Service	Development and support of plan to establish a statewide energy efficiency utility (EEU), and present the efficiency programs and plans for the EEU.
Vermont PSB	Docket No. 5983, October 1997	Vermont Department of Public Service	Critique of GMP's analysis and decision to terminate its Small and Large Commercial and Industrial Retrofit Programs in 1994, in the context of Vermont regulatory requirements.
Vermont PSB	Docket No. 6018, February 1998	Vermont Department of Public Service	Testimony addressing cost recovery and lost revenue adjustments for CVPS's Small and Large C&I Retrofit Programs, and violations of agreements made in Dockets 5270 CV-1 & 3 and 5686 and in Dockets 5828 and 5835.
Vermont PSB	Docket No. 6107, September 1998	Vermont Department of Public Service	Critique of GMP's performance in delivery energy efficiency programs and appropriate cost recovery and lost revenue adjustments.
Vermont PSB	Docket No. 6120, October 1998	Vermont Department of Public Service	Review and critique of CVPS's DSM plans.
Vermont PSB	Docket No. 5980, May 1999	Vermont Department of Public Service	Phase 2: Present and defend modifications to the EEU efficiency plans.
Vermont PSB	Docket No. 6860, December 2003	Vermont Electric Power	Presentation and defense of Efficiency component of Vermont Electric Company's

Philip H. Mosenthal Page 6 of 7

		Company	(VELCO) Transmission Integrated Resource Plan to assess the ability of efficiency to avoid or defer transmission upgrades.
Vermont Legislature	House Commerce Committee hearings on S. 52, April 2005	Efficiency Vermont	Testimony on aspects of s. 52, including the adoption of a VT renewable portfolio standard, inclusion of combined heat and power as eligible for funding under VT statewide electric energy efficiency programs, and mechanisms to allow large electric users to "opt-out" of energy efficiency utility funding surcharges.
Virginia SCC	Case No. PUE- 2007-00066, November 2007	Southern Environmental Law Center	Testimony regarding the need for a new coal-fired power plant proposed by Dominion Virginia Power. Addressed the achievable potential for electric efficiency in Dominion's Virginia territory as an alternative to new coal-fired supply, and the associated costs and benefits of efficiency initiatives.

Philip H. Mosenthal Page 7 of 7